

## REMARKS

Claims 7 has been previously cancelled, and claims 1-6 and 8-20 are pending in the present application. Favorable reconsideration of the pending claims is respectfully requested.

### 1. Rejections Under 35 U.S.C. § 102

Claims 1-4, 6, 8-14, 16-18 and 20 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,887,148 to Mu (hereafter "*Mu*") for the reasons set forth on pages 2-3 of the Office Action. Applicant respectfully traverses.

Claim 1 recites providing a container disposed upon the substrate, the "container in contact with the active surface of the IC chip." In contrast, *Mu* discloses a chip package body member 12 and a cover member 22 that surround a die 18, but are not in contact with the active surface of die 18, as shown in Figure 1. Rather, the active surface of die 18 in *Mu* is only in contact with the thermal conducting grease 20 and inner conductors 44.

Dependent claims 8 and 10 recite that "a flip chip is disposed over the active surface of the IC chip." There is no teaching or suggestion in *Mu* of a "flip chip" or any other kind of die or chip disposed over another chip. Rather, *Mu* discloses only a single die 18, such as shown in Figure 1.

Independent claim 12 recites a "flip chip" with an inactive surface and an active surface, with the flip chip being mounted upon a substrate, the method comprising "providing a container disposed upon the substrate and in contact with the active surface of the flip chip." In contrast, *Mu* discloses a die 18 that is not a "flip chip" since the active surface of the die faces away from the underlying substrate, as shown in Figure 1. As disclosed in the present application, the flip chip has an active surface that faces the underlying substrate, such as shown in Figures 7-9. In

addition, *Mu* does not teach or suggest a container “in contact with the active surface” of a chip, as recited in claim 12.

Independent claim 16 recites a “first IC chip” with an active surface, the first IC chip being mounted upon a first side of a board-on-chip (BOC) substrate, and a “second IC chip having an active surface and being disposed over the first side of the BOC substrate.” In contrast, *Mu* discloses only a single die 18, such as shown in Figure 1. There is no teaching or suggestion of any second die or “chip” disposed thereover. In addition, *Mu* does not teach or suggest a container “in contact with the active surface” of a chip, as recited in claim 16.

Claim 17 depends from claim 16 and recites “a third IC chip having an active surface and being disposed over the first side of the BOC substrate and over the second IC chip.” There is no teaching or suggestion in *Mu* of a third chip or die disposed over other chips. Rather, as discussed previously, *Mu* discloses only a single die 18 as shown in Figure 1.

Accordingly, for at least the foregoing reasons, claims 1-4, 6, 8-14, 16-18 and 20 are not anticipated by *Mu*. Applicant therefore respectfully requests that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn.

## 2. Rejections Under 35 U.S.C. § 103

Claims 5, 15, and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mu* in view of the article by Hunadi et al. (hereafter “*Hunadi*”) for the reasons set forth on page 4 of the Office Action. Applicant respectfully traverses.

Claim 5, 15, and 19 depend respectively from claims 1, 12, and 16, and thus include the limitations thereof. There is no teaching or suggestion in *Mu* of the various features discussed above that are recited in claims 1, 12, and 16. Additionally, such features are also not disclosed

in *Hunadi*. Hence, even if the teachings of *Mu* and *Hunadi* are combined as suggested by the Examiner, not all of the limitations of claims 5, 15, and 19 would be met.

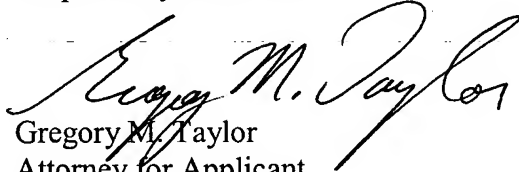
Accordingly, claims 5, 15, and 19 would not have been obvious over *Mu* in view of *Hunadi*. Thus, Applicant respectfully requests that the rejection of these claims under 35 U.S.C. § 103(a) be withdrawn.

#### CONCLUSION

In view of the foregoing, Applicant respectfully requests favorable reconsideration and allowance of the present claims. In the event there remains any impediment to allowance of the application, which could be clarified in a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney.

Dated this 17<sup>th</sup> day of May 2004.

Respectfully submitted,



Gregory M. Taylor  
Attorney for Applicant  
Registration No. 34,263  
Customer No. 022901